

ABSTRACT

5

and
B1
10
15
20
25

Novel epoxysuccinamide derivatives represented by the general formula (1) or physiologically acceptable salts thereof, which are useful particularly as remedies for bone diseases and arthritis, wherein R¹ and R³ are each hydrogen, alkyl, alkenyl, alkynyl, aryl, aralkyl, a heterocyclic group, or a heterocyclic-alkyl group; R² is alkyl, alkenyl, alkynyl, aryl, aralkyl, a heterocyclic group, or a heterocyclic-alkyl group; X is -O- or -NR⁴- (wherein R⁴ is hydrogen, alkyl, aryl, aralkyl, a heterocyclic group, or a heterocyclic-alkyl group; Y¹ is OR⁵, SR⁶, or NR⁷R⁸ (wherein each of R⁵, R⁶ and R⁷ is hydrogen, alkyl, aryl, aralkyl, acyl, a heterocyclic group, or a heterocyclic-alkyl group, and R⁸ is the same as defined for R⁴); and Y² is hydrogen or alkyl, or alternatively Y¹ and Y² can be combined to form =O, =S, =N-R⁹, or =N-OR¹⁰ (wherein each of R⁹ and R¹⁰ is the same as defined for R⁴), provided that each of the alkyl, aryl and heterocyclic groups defined for R⁵ to R¹⁰ can have one or more specific substituents and that each of the group defined for R¹ to R¹⁰ and Y² is specified in the number of carbon atoms.

